

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE



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PART- ONE

Thursday, the 14th October, 2021

DIRECTION

No. 49/2021

Dated :- 14/10/2021

Subject :- **Examinations leading to the Degree of अभियांत्रिकी पारंगत (Master of Engineering) (Environmental Engineering) (Full Time) / (Semester Pattern - - Choice Based Credit System)**

Whereas, Direction No. 32/2010 & 33 of 2012 in respect of various examinations leading to the Degree of अभियांत्रिकी पारंगत (Master of Engineering) (Part Time) (Semester Pattern ---- Credit Grade System) is in existence,

Whereas, Direction Nos. 31/2010, 57/2010, 23/2013, 22/2014 and 21/2016 in respect of the examinations leading to the Degree of अभियांत्रिकी पारंगत (Master of Engineering) (Full Time) /तंत्रशास्त्र पारंगत (Master of Technology) (Full Time) (Semester Pattern --- Credit Grade System) are in existence,

AND

Whereas, the letter F.No. Western/1-7022317883/2020/EOA dated 15/6/2020 received from the Member Secretary, A.I.C.T.E. New Delhi regarding extension of approval to the Two years Full Time Course for the academic year 2020-21,

AND

Whereas, Govt. Resolution vide No.TEM-2020/Pra.Kra.102/Tant.Shik.-4 dtd.13.8.2020 received from the Deptt.of Higher & Technical Edn., Govt. of Maharashtra, Mantralaya, Mumbai regarding extension of approval to the Two years Full Time Course from the academic year 2020-21 as per A.I.C.T.E. approval,

AND

Whereas, the letter No. PRMITRB/Estt/347/2020 dtd. 17.7.2020 received from the Principal, Prof. Ram Meghe Institute of Technology & Research, Badnera regarding preparation of the syllabus of the Two years (F.T.) Course M.E. (Environmental Engg.) as per approval of A.I.C.T.E. New Delhi from the academic year 2020-21,

AND

Whereas, Hon'ble Vice Chancellor has constituted a Committee under the Chairmanship of Dr.F.C. Raghuwanshi, Dean, Faculty of Science & Technology for the preparation of the draft Schemes of Teaching & Examination of Semester I to IV of the Course M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) as per A.I.C.T.E. Model Curriculum to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, the Committee in its emergency on-line meetings held on 3.9.2020 & 4.9.2020 had recommended the draft Schemes of Teaching & Examination of Semester I to IV of the Course M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) as per A.I.C.T.E. Model Curriculum to the Faculty of Science & Technology to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, the Faculty of Science & Technology in its on-line meeting held on 8.9.2020 vide Item No. 10 had considered and accepted the draft Schemes of Teaching & Examination of Semester I to IV of the Course M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) as per A.I.C.T.E. Model Curriculum and recommended the same to the Academic Council to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, Hon'ble Vice Chancellor has accepted and accorded approval to the recommendation of the Faculty of Science & Technology on behalf of Academic Council under Section 12 (7) of Maharashtra Public Universities Act, 2016 on 20/09/2020 regarding implementation of the Schemes of Teaching & Examination of Semester I to IV of the Course M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) as per A.I.C.T.E. Model Curriculum to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, the Board of Studies in Civil Engineering (Incl.C.T.) in its emergency on-line meeting held on 12.10.2020 has prepared and recommended the draft syllabus of Semester I to IV of the Course M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) as per A.I.C.T.E. Model Curriculum and also recommended the Entry level qualification of the Course to the Faculty of Science & Technology to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, Hon'ble Vice Chancellor has accorded approval to the recommendations of the Board of Studies in Civil Engineering (Incl.C.T.) in its emergency on-line meeting held on 12.10.2020 vide Item Nos. 1, 2 & 3 on behalf of Faculty of Science & Technology and Academic Council on 14/12/2020 regarding draft syllabus of Semester I to IV of the Course M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) as per A.I.C.T.E. Model Curriculum, provisions of draft Ordinance regarding Entry level qualification for the Course and the schemes of Equivalence & Absorption / chances for the old course failure students of M.E. (Env.Engg.) (P.T.) (Three years Semester Pattern Credit Grade System) to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, the Scheme of teaching & examinations and syllabi along with Entry level qualification of the Course are to be implemented from the current academic session 2020-2021,

AND

Whereas, admissions to the First Year of Master of Engineering (Full Time) courses are to be made in the academic session 2020-2021,

AND

Whereas, the Schemes of teaching & examinations are required to be regulated by an Ordinance / Regulation,

AND

Whereas, at the time of considering the directions issued under Section 12 (8) of the Maharashtra Public Universities Act, 2016, the Academic Council in its meeting held on 13.01.2020 vide Item No. 04 has resolved as under:

Hereinafter afresh Direction shall be issued by superseding earlier direction if the relative legislation not be made in a stipulated period,

AND

Whereas, the existing direction No. 15/ 2021 regarding examination leading to the degree of अभियांत्रिकी पारंगत (Master of Engineering) (Environmental Engineering) (Full Time) / (Semester Pattern - - Choice Based Credit System) in the Faculty of Science & Technology has been lapsed as per sub Section (8) of Section 12 of the Maharashtra Public Universities Act, 2016 and could not be converted into an Ordinance / Regulation. Hence, it is now imperative to issue a fresh direction,

AND

Whereas, matter of making an Ordinance / Regulation is a time consuming process.

Now, therefore, I, Dr. D. N. Malkhede, Vice Chancellor of Sant Gadge Baba Amravati University, Amravati in exercise of powers conferred upon me under the sub-section (8) of Section 12 of the Maharashtra Universities Act, 2016, do hereby direct as under :-

- (i) This Direction shall be called "Examination leading to the Degree of अभियांत्रिकी पारंगत (Master of Engineering) (Environmental Engineering) (Full Time) (Semester Pattern - - Choice Based Credit System) Direction, 2021".
- (ii) This Direction shall come into force with effect from the session :
2020-2021 for Semester I & II and
2021-2022 for Semester III & IV
- (iii) Following shall be the examinations leading to the degree of अभियांत्रिकी पारंगत (Master of Engineering) (Environmental Engineering) (Full Time) (Semester Pattern - - - Credit Grade System) :
a) M.E. (Env. Engg.) Semester I Examination in Winter at the end of the Semester I
b) M.E. (Env. Engg.) Semester II Examination in Summer at the end of the Semester II
c) M.E. (Env. Engg.) Semester III Examination in Winter at the end of the Semester III
d) M.E. (Env. Engg.) Semester IV Examination in Summer at the end of Semester IV
- (iv) The Eligibility Criteria for admission to the Degree of Master of Engineering (Full Time) courses shall have passed the Degree examination in Bachelor of Engineering in the branches mentioned under column No.3 of the following table against the respective courses mentioned under column No.2 :-

TABLE

Sr.No.	M.E.	Entry level Qualification
1	2	3
	M.E. (Environmental Engg.) (F.T.) (C.B.C.S.)	B.Tech. or equivalent degree in Civil Engg., Mechanical Engg., Electrical Engg., Chemical Engg. and Agriculture Engg.

- (v) The Schemes of teaching and examination of Semester I to IV of M.E. (Environmental Engg.) (F.T.) (C.B.C.S.) shall be as per the **Appendix – A** appended with this Direction .
- (vi) Other remaining provisions as mentioned in the Direction No. 31 of 2010, 57/2010, 23/2013, 22/2014 and 21/2016 shall be applicable for the above mentioned Course.

Date : 13/10/2021

Sd/-
(Dr.D. N. Malkhede)
Vice-Chancellor
Sant Gadge Baba Amravati University

Two Year Post-Graduate Course in Master of Engineering (Full Time)
Civil Engineering (Environmental Engineering)
CREDIT GRADE SYSTEM

FIRST SEMESTER																			
Sr No		Course Type / Subject Code		Subject Name		Teaching Scheme					Examination Scheme								
						Hours per Week			Total Hours/Week	Credit	Theory					Practical			
						Lecture	Tutorial	P/D			Duration of paper (Hr)	Max Marks Theory Paper	Max Marks College Assessment	Total	Min Passing Marks	External	Internal	Total	Min Passing Marks
Theory																			
1	Core 1 (1SFEE1)		Environmental Microbiology		3			3	3		3	80	20	100	50				
2	Core 2 (1SFEE2)		Environmental Sciences and Chemistry		3			3	3		3	80	20	100	50				
3	Program Elective - I (1SFEE3)		Program Elective - I		3			3	3		3	80	20	100	50				
4	Program Elective - II (1SFEE4)		Program Elective - II		3			3	3		3	80	20	100	50				
5	MLC (1SFEE5)		Research Methodology and IPR		2			2	2		2	40	10	50	25				
6	Audit Course 1 (1SFEE6)		Audit Course		2			2	0										
Practicals/Drawing/Design																			
7	Core Lab	1	Environmental Engineering Laboratory - 1				2	2	1							25	25	50	25
8	Core Lab	2	Environmental Engineering Laboratory - 2				2	2	1							25	25	50	25
Total					16	0	4	20	16					450		50	50	100	
												Total	550						

SECOND SEMESTER																	
			Teaching Scheme					Examination Scheme									
								Theory					Practical				
													Max Marks				
Sr No	Course Type / Subject Code	Subject Name	Lecture	Tutorial	P/D	Total Hours/Week	Credit	Duration of paper (Hr)	Max Marks Theory Paper	Max Marks College Assessment	Total	Min Passing Marks	External	Internal	Total	Min Passing Marks	
Theory																	
1	Core 3 (2SFEE1)	Advanced Water Treatment Technology	3			3	3		3	80	20	100	50				
2	Core 4 (2SFEE2)	Advanced Waste Water Treatment Technology	3			3	3		3	80	20	100	50				
3	Program Elective - III (2SFEE3)	Program Elective - III	3			3	3		3	80	20	100	50				
4	Program Elective - IV (2SFEE4)	Program Elective - IV	3			3	3		3	80	20	100	50				
5	Audit (2SFEE5) 2	Audit Course - 2	2			2	0										
Practical's/Drawing/Design																	
6	Core Lab 3 (2SFEE6)	Environmental Engineering Laboratory - 3			2	2	1							25	25	50	25
7	Core Lab 4 (2SFEE7)	Environmental Engineering Laboratory - 4			2	2	1							25	25	50	25
8	Core (2SFEE8)	Mini Project			2	2	1							25	25	50	25
Total			14		6	20	15					400		75	75	150	
														Total		550	

Program Elective I: 1) Watershed Management; 2) Environmental Geotechnology; 3) Hazardous Waste Management
Program Elective II: 1) Air Pollution; 2) Rural Water Supply and Sanitation; 3) Environmental Statistics and Optimization Techniques
Program Elective III : 1) Solid and Biomedical Waste Management; 2) Bioremediation: Principles and Application; 3) Soft Computing Skills
Program Elective IV: 1) Industrial Waste Water Treatment; 2) Environmental Management and Auditing; 3) Environmental Systems Modelling and Statistics
Program Elective V: 1) Environmental Impact Assessment and Management; 2) Water Supply and Wastewater Collection Systems; 3) Remote Sensing and GIS in Environmental Engineering;
Open Elective: 1) Business Analytics; 2) Industrial Safety; 3) Operation Research; 4) Cost Management of Engineering Projects; 5) Composite Materials; 6) Waste to Energy
Audit Course 1: 1) English for Research Paper Writing; 2) Value Education; 3) Pedagogy Studies.
Audit courses 2: 1) Disaster Management; 2) Personality Development through Life Enlightenment Scheme 3) Stress Management by Yoga.
For Audit Course 1 and Audit Course 2 -Student has to complete the audit course successfully and institute should certify the same. Student may also complete equivalent audit courses by using MOOC as recommended by AICTE.

THIRD SEMESTER																
		Teaching Scheme						Examination Scheme								
				Hours per Week		Total Hours/Week	Credit	Theory				Practical				
		Lecture	Tutorial	P/D	Max Marks			Max Marks	Total	Min Passing Marks	External	Internal	Total	Min Passing Marks		
Sr No	Course Type / Subject Code	Subject Name	Lecture	Tutorial	P/D	Total Hours/Week	Credit	Duration of paper (Hr)	Max Marks Theory Paper	Max Marks College Assessment	Total	Min Passing Marks	External	Internal	Total	Min Passing Marks
1	Program Elective - V (3SFEE1)	Program Elective - V	3			3	3	3	80	20	100	50				
2	Open Elective - 1 (3SFEE2)	Open Elective - 1	3			3	3	3	80	20	100	50				
3	Seminar & Dissertation (3SFEE3)	Seminar & Dissertation Phase -1			24	24	12							100	100	50
Total			6	0	24	30	18				200			100	100	
													Total	300		

FOURTH SEMESTER																
			Teaching Scheme					Examination Scheme								
			Hours per Week			Total Hours/Week	Credit	Theory				Practical				
			Lecture	Tutorial	P/D			Max Marks Theory Paper	Max Marks College Assessment	Total	Min Passing Marks	External	Internal	Total	Min Passing Marks	
1	Seminar & Dissertation (4SFEE1)	Seminar & Dissertation Phase -2			32	32	16						200	100	300	150
Total					32	32	16								300	

Total Credit for Course: 16+15+18+16	65
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Semester III :

Seminar: Seminar to be delivered on the work completed during third semester. 50 internal marks out of 100 will be assessed by committee consisting of head of department, Dissertation guide and Subject expert appointed by Principal of the college/ Head of university department. Remaining 50 internal marks will be by guide based on the performance.

Dissertation: Title of the Dissertation work to be submitted to the university on or before 15 September (for regular examination) and 15 February (for supplementary examination). Title modified/ rejected by the sanctioning authority to be conveyed to the concerned within a month.

Semester IV :

Note: Thesis of Dissertation must be submitted to the university on/ before 30th April (for regular examination) and 30th November (for supplementary examination).

Thesis of dissertation with a late fee to the university up to 31st May (for regular exam) and 31st November (for supplementary examination). The late fees shall be charged as in case of examination form

- The student should fill the examination form for 3rd and 4th semester separately.